

.STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES
MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0114910

Owner: Labadie Sewer District of Franklin County
Address: P. O. Box 154, Labadie, MO 63055

Continuing Authority: Same as above
Address: Same as above

Facility Name: Labadie Creek Treatment Facility
Facility Address: Labadie Bottom Road, Labadie, MO 63055

Legal Description: SW1/4, SW1/4, NW1/4, Sec. 30, T44N, R2E, Franklin County
Latitude/Longitude: +38 31 55/ -090 50 46

Receiving Stream: Labadie Creek (P)
First Classified Stream and ID: Labadie Creek (P)(1693)
USGS Basin & Sub-watershed No.: (10300200 – 130002)
is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 – Public Sewer District - SIC #4952
Three cell, aerated lagoon/ sludge retained in lagoon.
Design population equivalent is 740.
Design flow is 74,000 gallons per day.
Actual flow is 20,000 gallons per day.
Actual sludge production is 11.0 dry tons/year.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

May 5, 2006

Effective Date

Doyle Childers, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

May 4, 2011

Expiration Date

Mike Struckhoff, Director, St. Louis Regional Office

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 2 of 5	
					PERMIT NUMBER MO-0114910	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The Interim effluent limitations shall become effective upon issuance and remain in effect until November 28, 2009. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	Once/ Month	24 hr. estimate
Temperature	°C	*		*	Once/ quarter**	grab
Biochemical Oxygen Demand ₅	mg/L		65	45	Once/quarter **	grab
Total Suspended Solids	mg/L		110	70	Once/quarter **	grab
pH – Units	SU	***		***	Once/ quarter **	grab
Ammonia as N	mg/L	*		*	Once/ quarter **	grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2006</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only. Measure monthly and report quarterly.
- ** Sample once per Quarter during the months of February, May, August and November.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PAGE NUMBER 3 of 5	
					PERMIT NUMBER MO-00114910	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective November 29, 2009 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
(OUTFALL NUMBER AND EFFLUENT PARAMETERS)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #001</u>						
Flow	MGD	*		*	Monthly	24 hour estimate
Temperature	°C	*		*	Once/quarter**	Grab
Biochemical Oxygen Demand ₅	mg/L		45	30	Once/quarter**	Grab
Total Suspended Solids	mg/L		45	30	Once/quarter**	Grab
pH – Units	SU	***		***	Once/quarter**	Grab
Ammonia as N (May 1 – Oct 31)	mg/L	2.7		1.3	Once/quarter**	Grab
(Nov 1 – Apr 30)	mg/L	4.7		2.3	Once/quarter**	Grab
Fecal Coliform (Note 1)	#/100 mL	1000		400	Once/quarter**	Grab
Total Residual Chlorine (Note 2)	mg/L	0.019 (.13ML)		0.01 (.13 ML)	Once/quarter**	Grab
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>January 28, 2010</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Parts I & III</u> STANDARD CONDITIONS DATED <u>October 1, 1980 and August 15, 1994</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (Continued)

- * Monitoring requirement only.
- ** Once per quarter in the months of February, May, August, and November.
- *** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0 to 9.0 pH units

Note 1 – Final limitations and monitoring requirements for Fecal Coliform and Total Residual Chlorine are applicable only during the recreational season from April 1 through October 31.

Note 2 - This permit contains a Total Residual Chlorine (TRC) limit.

- a. This effluent limit is below the minimum quantification level (ML) of the most common and practical EPA approved CLTRC methods. The department has determined the current acceptable ML for total residual chlorine to be 0.13 mg/L when using the DPD Colorimetric Method #4500-CL G. from Standard Methods for the Examination of Water and Wastewater. The permittee will conduct analyses in accordance with this method, or equivalent, and report actual analytical values. Measured values greater than or equal to the minimum quantification level of 0.13 mg/L will be considered violations of the permit and values less than the minimum quantification level of 0.13 mg/L will be considered to be in compliance with the permit limitation. The minimum quantification level does not authorize the discharge of chlorine in excess of the effluent limits stated in the permit.
- b. Disinfection is required year-round unless the permit specifically states that “Final limitations and monitoring requirements for Fecal Coliform are applicable only during the recreational season from April 1 through October 31.” If your permit does not require disinfection during the non-recreational months, do not chlorinate in those months.

C. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - a. Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - b. Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - c. Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.
2. All outfalls must be clearly marked in the field.
3. Permittee will cease discharge by connection to areawide wastewater treatment system within 90 days of notice of its availability.
4. Changes in Discharges of Toxic Substances.

The permittee shall notify the Director as soon as it knows or has reason to believe:

 - a. That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 µg/L);
 - (2) Two hundred micrograms per liter (200 µg/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 µg/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
 - b. That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.
 - c. That the effluent limit established in part A of the permit will be exceeded.
5. Report as no-discharge when a discharge does not occur during the report period.
6. Water Quality Standards.
 - a. Discharges to waters of the state shall not cause a violation of water quality standards rule under 10 CSR 20-7.031, including both specific and general criteria.
 - b. General Criteria. The following general water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
 - (1) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (2) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (3) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (4) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (5) There shall be no significant human health hazard from incidental contact with the water;
 - (6) There shall be no acute toxicity to livestock or wildlife watering;
 - (7) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (8) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Sludge and Biosolids Use For Domestic Wastewater Treatment Facilities
 - a. Permittee shall comply with the pollutant limitations, monitoring, reporting, and other requirements in accordance with the attached permit Standard Conditions.
 - b. If sludge is not removed by a contract hauler, permittee is authorized to land apply biosolids. Permit Standard Conditions, Part III shall apply to the land application of biosolids. Permittee shall notify the department at least 180 days prior to the planned removal of biosolids. The department may require submittal of a biosolids management plan for department review and approval as determined appropriate on a case-by-case basis.

D.SCHEDULE OF COMPLIANCE:

Labadie Sewer District of Franklin County shall upgrade Labadie Creek Treatment Facility to meet the final effluent limitations, As specified by the Water Quality Review Sheet dated January 17, 2005 in accordance with the following schedule.

- 1) By December 28, 2006, submit an engineering report identifying the steps to improve the existing treatment facility or eliminate the discharge.
- 2) By June 28, 2007, submit plans and specifications and an application with appropriate fees for a construction permit to improve the existing system or eliminate the discharge.
- 3) By November 29, 2009, this project must be completed according to the approved plans and specifications and final limits must be met.

Date of Fact Sheet: January 17, 2006

Date of Public Notice: March 10, 2006

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0114910

FACILITY NAME: Labadie Creek Treatment Facility

OWNER NAME: Labadie Sewer District of Franklin County

LOCATION: W½, NW¼, Sec. 30, T44N, R2E; Franklin County:

RECEIVING STREAM: Labadie Creek

FACILITY CONTACT PERSON: Kent Cunningham

TELEPHONE: (636)742-3094

FACILITY DESCRIPTION AND RATIONALE

This facility provides secondary treatment of the wastewater discharge with an aerated, three cell lagoon system. Sludge is retained in the lagoon. The design flow of the facility is 74,000 gallons per day and the actual flow is 20,000 gallons per day. Standard technology – based limits for BOD₅, TSS, pH and Fecal Coliform from 10 CSR 20-7.015(8) are assumed to be adequate to protect the receiving stream. However, this may be negated by other nearby discharges into the same receiving stream. The permit should contain a “reopener clause” to address water quality issues should this or other monitoring data indicate water quality standards are being exceeded, due, at least in part to this discharge.

Ammonia limits are necessary, due to the size of the discharge and the fact that the discharge is directly to a classified stream. Mixing zones were calculated in accord with 10 CSR 20-7.031(4) (A) 5. B. (II) (a) & (b) and Ammonia as N limits in accord with 10 CSR 20-7.031 (4) (B) 1. and Table B. Under the conditions of this discharge, where chlorine is used as a disinfectant, the effluent shall be dechlorinated. The limits are provided in 10 CSR 20-7.031 (4) (B) 1. and Table B.

This permit will be issued for a period of five years.

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